IS 10840 (1994): Blow Moulded HDPE Containers for Packing of Vanaspati [PCD 21: Plastics Containers]

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IS 10840 : 1994
( Reaffirmed 2004 )

भारतीय मानक

# वनस्पति की पैकिंग के लिए ब्लो मोल्डकृत एच डी पी ई डिब्बे – विशिष्टि

( दूसरा पुनरीक्षण )

*Indian Standard*

# BLOW MOULDED HDPE CONTAINERS FOR PACKING OF VANASPATI — SPECIFICATION

*( Second Revision )*

( First Reprint JUNE 1995 )

UDC 621·798·151 [ 678·742·2 ] : 664·31



BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

*May* 1994

Price Group 3

Plastics Containers Sectional Committee, PCD 21

## FOREWORD

This Indian Standard ( Second Revision ) was adopted by the Bureau of Indian Standards, after the draft finalized by the Plastics Containers Sectional Committee had been approved by the Petroleum, Coal and Related Products Division Council.

This standard was first published in 1984 and an early first revision of the standard was taken up in 1986 with a view to remove any ambiguity in the manufacturing and testing requirements of HDPE containers for packing of vanaspati. With the experience gained by the vanaspati manufacturing industry from the wide usage of HDPE containers for packing of vanaspati, the requirements of the material, container mass and tests were thoroughly, revised ( in the first revision of the standard ) for proper implementation. The information regarding the minimum brimful capacity, container mass and shape and design of the container were required to be specified by the purchaser of the container. It was also felt that inner seal material not forming a part of the container, the container manufacturer would get this information from the purchaser or filler of the container and use the same material for complying with the test requirements of closure leakage test, drop impact test and stacking test of the standard.

The present revision of the standard has been taken up as a result of review of this standard by the concerned Technical Committee in the light of the changes in the material designation presently made available, problems faced by the user of this standard in complying with the performance test requirements viz, closure leakage test, drop impact test and stacking test, etc, and also to extend the scope of this standard for packing of vanaspati in quantities up to and including 15 kg as a possible replacement of the 15 kg tin containers. In this revision the material grade designation for the containers, handles and closures, has been aligned with the grade designation of IS 7328 : 1992 'High density polyethylene ( HDPE ) materials for moulding and extrusion', the test procedures for closure leakage test and drop-impact test and the requirements for inner seal has been modified.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values ( *revised* )'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# *Indian Standard*

# BLOW MOULDED HDPE CONTAINERS FOR PACKING OF VANASPATI — SPECIFICATION

## *( Second Revision )*

### 1 SCOPE

This standard covers the requirements, methods of sampling and tests for blow moulded high density polyethylene ( HDPE ) containers for packing of vanaspati ( hydrogenated oil ) in quantities of 1, 2, 5, 10 and 15 kg.

### 2 NORMATIVE REFERENCES

The following standards contain provisions which through reference in this text constitute provisions of this standard. At the time of publication the editions indicated were valid. All standards are subject to revisions, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standard indicated below:

| *IS No.* | *Title* |
|---|---|
| 4905 : 1968 | Methods for random sampling |
| 7019 : 1982 | *Glossary of terms in plastics* and flexible packaging excluding paper ( *first revision* ) |
| 7028 ( Part 2 ) : 1973 | Performance tests for complete filled transport packages: Part 2 Vibration test |
| 7328 : 1992 | High density polyethylene materials for moulding and extrusion ( *first revision* ) |
| 9833 : 1981 | List of pigments and colourants for use in plastics in contact with foodstuffs, pharmaceuticals and drinking water |
| 9845 : 1986 | Method of analysis for the determination of specific and/or overall migration of constituents of plastics materials, and articles intended to come into contact with foodstuffs ( *first revision* ) |
| 10146 : 1982 | Polyethylene for its safe use in contact with foodstuffs, pharmaceuticals and drinking water |
| 10910 : 1984 | Polypropylene and its copolymers for its safe use in contact with foodstuffs, pharmaceuticals and drinking water |
| 10951 : 1984 | Polypropylene and propylene copolymers thermoplastics — Designation |

### 3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 7019 : 1982 and the following shall apply.

#### 3.1 Container

The term 'container' shall mean container body, handles and closures and inner seal inclusive.

### 4 REQUIREMENTS

#### 4.1 Material

##### 4.1.1 *Container Body*

The material used for the container body shall be of HDPE of grade designation PE BAN A50 T012 or PE BAN A57 T012 or PE BAN A50 T022 or PE BAN A57 T022 or PE BAN A50 T003 or PE BAN A50 T066 conforming to IS 7328 : 1992.

The material shall be of food grade HDPE conforming to IS 10146 : 1982.

The pigments and colourants used shall be as per the lists and limits prescribed in IS 9833 : 1981.

##### 4.1.2 *Handle and Closure*

The material used for the handles and closures shall be of HDPE of grade designation PE MAN A57 T200 conforming to IS 7328 : 1992 or of polypropylene generally of grade designation PP-HM-95-030 — Nat or PP-HC-95-030 — Nat conforming to IS 10951 : 1984.

The material shall also be of food grade HDPE conforming to IS 10146 : 1982 or of food grade polypropylene conforming to IS 10910 : 1984.

The pigments and colourants used shall be as per the lists and limits prescribed in IS 9833 : 1981.

Steel/MS rods or any other suitable materials, duly protected with polish or paints to avoid rust, may also be used provided it does not come in contact with the products ( vanaspati ); thickness of the rod be agreed between the purchaser and the supplier.

**4.1.3** *Inner Seal*

The inner seal shall be of foodgrade plastics/ laminates heat-sealable. It may be in the form of a plug/insert or a diaphragm.

**4.2 Manufacture**

**4.2.1** The container shall be manufactured by blow moulding; the handle and the top closure shall be made by injection moulding, 1 and 2 kg containers may or may not be provided with the handle but 5 kg, 10 kg and 15 kg containers shall be provided with a handle.

**4.2.2** The container, closure and the handle shall be free from any visual defects like local thinning, warping, burning and non-uniform colour dispersion.

**4.3 Capacity**

The minimum brimful capacity of the container when checked in accordance with the method given in Annex A shall be as under:

| *Container Capacity* ( kg ) | *Minimum Brimful Capacity* ( ml ) |
|---|---|
| 1 | 1 160 |
| 2 | 2 300 |
| 5 | 5 700 |
| 10 | 11 500 |
| 15 | 17 500 |

NOTE — The brimful capacity of the container may be calculated on the basis of the specific gravity of vanaspati and may vary with the filling process and filling temperature. The purchaser of the container shall specify the minimum brimful capacity according to the method and temperature of his filling.

**4.4 Mass**

**4.4.1** The mass of the container shall be as specified by the purchaser. The mass of the lid and handle, when provided, shall not be included in the mass of the containers. The tolerance on the nominal mass of the container as specified by the purchaser shall be as under:

| *Container Capacity* ( kg ) | *Tolerance Nominal Mass* ( percent ) |
|---|---|
| 1 | ±7 |
| 2 | ±7 |
| 5 | ±4 |
| 10 | ±4 |
| 15 | ±4 |

**4.4.2** Tolerance on the nominal specified mass of the lid and the handle checked individually shall be ±5 percent.

**4.5 Shape and Dimensions**

The shape and dimensions of the container shall be as specified by the purchaser.

**4.6 Wall Thickness**

The wall thickness shall be measured in accordance with the method given in Annex B. The minimum wall thickness at any point of the container shall be not less than 0·30 mm for containers of 1 and 2 kg capacity, 0·50 mm for the containers of 5 and 10 kg capacity and 0·70 mm for containers of 15 kg capacity.

NOTE — The wall thickness of the container is subject to variation over the total area. The thinner sections generally occur at the top and bottom corners of the containers.

**4.7 Tests**

**4.7.1** *Closure Leakage Test*

The containers filled with water at ambient temperature and closed tight with the closure with inner seal heat-sealed to its mouth, shall not show any leakages when held vertically upside down for 10 minutes. The containers may be kept on a blotting paper in upside down position and any leakages observed shall be noted.

**4.7.2** *Drop Impact Test*

The containers filled with water at standard temperature of 27 ±2°C and closed tight with the closure with inner seal heat-sealed to its mouth shall not show any sign of rupture or leakage on the part of container body, closure, handles and the inner seal, when tested in accordance with the method described in Annex C.

The drop height of the containers up to 5 kg. capacity shall be 1·2 m, for containers of 10 kg capacity 1·0 m and for containers of 15 kg capacity it shall be 0·5 m respectively.

**4.7.3** *Stacking Test*

The containers shall not show any deformation likely to reduce their strength, cause leakage or reduction in effectiveness of the closure or cause instability in stacks when tested in accordance with the method described in Annex D

**4.7.4** *Handle Pull Test*

The containers provided with the handle when subjected to a vertical pull of double its nominal filling capacity for 10 minutes shall not show any damage to the handle or the hinges.

4.7.5 *Ink Adhesion for Printed Containers*

The printed containers when tested in accordance with the method given in Annex E shall not show any significant removal of the print from the container surface and the print shall be legible to the naked eye after the test.

4.7.6 *Product Resistance of Printed Containers*

The printed containers when tested in accordance with the method given in Annex F shall not show any significant removal of the print from the container surface and the print shall be legible to the naked eye after the test.

4.7.7 *Migration Test*

Representative samples of containers shall be subjected to overall migration test with *n*-heptane at 27±2°C for 30 minutes either by filling the whole container or by using sheets cut from the container; in the latter case the migration value has to be extrapolated to the container contact surface area and the volume of the contents. The maximum extraction values for the container material shall not exceed 60 mg/l ( for details of the test *see* IS 9845 : 1986 ).

## 5 MARKING

5.1 Each container shall be permanently marked with the following :

i) Indication of the source of manufacture and trade-mark, if any;

ii) Net mass of the material to be packed in it;

iii) Batch No. or Code No. or otherwise to enable the lot of consignment or manufacture to be traced back from records;

iv) Any other information required by the purchaser; and

v) Made from "food grade" plastics materials.

### 5.2 BIS Certification Marking

The containers may also be marked with the Standard Mark.

5.2.1 The use of the Standard Mark is governed by the provisions of Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

## 6 SAMPLING

Sampling of containers shall be drawn and the criteria for conformity determined as described in Annex G.

# ANNEX A

( *Clause* 4.3 )

## METHOD OF MEASUREMENT OF BRIMFUL CAPACITY

### A-1 APPARATUS

A-1.1 A rigid transparent plastic disc with a slot ( *see* Fig. 1 ) big enough to completely cover the neck face of the container.

A-1.2 Weighing balance to determine the mass of the container to an accuracy of 1 g.

### A-2 PROCEDURE

A-2.1 Weigh the empty container and the rigid transparent plastic disc to an accuracy of 1 g.

A-2.2 Fill the container with water to within approximately 3 mm of brim. The water used should be at ambient temperature or in case of dispute, at 27±2°C.

A-2.3 Place the rigid transparent plastic disc on the neck face and top-up by carefully pouring water through the slot until the water is seen just contacting the underside of the disc.

A-2.4 Weigh the filled container, together with the rigid transparent plastic disc.

A-2.5 The difference in weighings is the mass of the water recorded in grams. The results shall be expressed to the nearest 1 g.

A-2.6 Alternately the volume of water can be measured by directly to the nearest millilitres.

### A-3 RESULT

The mass of the water in grams or the volume of water measured is numerically equal to the brimful capacity of the container in millilitres.

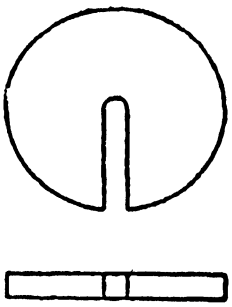

FIG. 1 TRANSPARENT PLASTIC DISC

## ANNEX B

( *Clause* 4.6 )

### MEASUREMENT OF WALL THICKNESS

**B-1** Ascertain the wall thickness by measuring with a dial calliper gauge fitted with a spherical end micrometer accurately and carefully after cutting containers in longitudinal and vertical segments exposing vulnerable areas ( say near bottom curvature ).

The measurement shall be to an accuracy of 0·05 mm. Take the mean of three readings at any location as the wall thickness at that point.

## ANNEX C

( *Clause* 4.7.2 )

### TEST FOR DROP IMPACT STRENGTH

**C-1 SAMPLE SIZE**

The sample size shall be six containers, taken at random from a batch, divided into two sets of 3 each, designated as Set 1 and Set 2.

**C-2 PROCEDURE**

**C-2.1** Fill each container to its nominal capacity with water at standard conditions ( 27±2°C and 65±5 precent relative humidity ).

**C-2.2** Close each container with its usual closure with the inner seal heat sealed to its mouth.

**C-2.3** Drop the containers under free fall condition in Set 1 squarely on their base on to a rigid flat horizontal surface of steel or smooth concrete as the dropping surface.

**C-2.4** Drop the containers under free fall condition in Set 2 on their side ( the body of the container being parallel to the impacting floor ) onto the dropping surface.

**C-2.5** Examine each container for signs of rupture or leakage on the part of the container body, closure, handles and inner seal.

# ANNEX D

( *Clause* 4.7.3 )

## STACKING TEST

**D-1 SAMPLE SIZE**

Four containers shall be used for each single test.

**D-2 PROCEDURE**

**D-2.1** Arrange the containers, filled with water at ambient temperature to nominal capacity and closed with their usual closure with the inner seal heat sealed to the mouth and the lid closed to the normal torque, on a flat level surface in a block of 2 × 2 without any outer support.

**D-2.2** Apply a top load evenly distributed on a flat surface placed on the unsupported containers. The total superimposed load along with the load of the flat surface for different sizes of containers shall be as under :

| *Container Capacity* | *Stack Load on 4 Containers* |
|---|---|
| ( kg ) | ( N ) |
| 1 | 400 |
| 2 | 600 |
| 5 | 800 |
| 10 | 1 200 |
| 15 | 1 600 |

**D-2.3** Examine the containers after 24 h of test period.

**D-3 OBSERVATIONS**

The containers shall not show any leakage, cracks or permanent buckling after the removal of the test load after 24 hours.

# ANNEX E

( *Clause* 4.7.5 )

## TEST FOR INK ADHESION OF PRINTED CONTAINERS

**E-1** Apply two strips of 25 mm wide transparent pressure sensitive tape or cello-tape to the printed area of container, one piece down the length of the container and the other round the circumference.

**E-2** Press the tape firmly on to the container and leave it for 15 seconds.

**E-3** Remove the tape by pulling slowly at about 1 cm/s from one end at about 90° to the container surface.

**E-4** There shall be no significant removal of the print from the surface of the container and the print shall be legible to the naked eye after the test.

# ANNEX F

( *Clause* 4.7.6 )

## TEST FOR PRODUCT RESISTANCE OF PRINTED CONTAINERS

**F-1** Leave the containers to stand for at least 24 hours after printing.

**F-2** Smear the containers, or representative section cut from the printed area, with molten vanaspati at $40^{+2}_{-0}$°C and leave it for 1 hour.

**F-3** Wash the container or its representative section with cold water.

**F-4** Rub each container or representative section firmly with hard paper tissue ten times.

**F-5** There shall be no significant removal of the print from the surface of the container and the print shall be legible to the naked eye after the test.

# ANNEX G

( *Clause* 7 )

## SAMPLING

### G-1 SCALE OF SAMPLING

#### G-1.1 Lot

In any consignment all the cotainers of the same material, nominal capacity and drawn from a single batch of manufacture shall be grouped together to constitute a lot.

#### G-1.2 Scale of Sampling

For ascertaining the conformity of the lot to the requirements of this standard, tests shall be carried out for each lot separately. The number of containers to be sampled from a lot shall be in accordance with Table 1.

**G-1.3** The containers shall be selected at random from the lot. To ensure the randomness of selection, methods given in IS 4905 : 1968 may be followed.

### G-2 CRITERIA FOR CONFORMITY

#### G-2.1 Visual Examination

The sample containers selected as per col 2 of Table 1 shall be examined for manufacturing conditions ( **4.2.2** ). Any containers failing in one or more of the requirements shall be termed as defective. The lot shall be accepted under this head if the number of defective containers in sample does not exceed the acceptance number given in col 3 of Table 1.

#### G-2.2 Brimful Capacity, Container Mass and Mass of Handle and Lid

For the purpose of above tests, five containers for lot size up to 5 000 and 10 containers for lot size above 5 000 shall be selected at random from the samples already drawn according to **G-1.3**. Each of the sample containers shall be subjected to tests for brimful capacity ( **4.3** ) container mass ( **4.4.1** ) and the mass of lid and handle ( **4.4.2** ). There shall be no failure if the lot is to be accepted under this clause.

#### G-2.3 Test for Closure Leakage

The number of sample containers to be drawn shall be in accordance with col 4 of Table 1. Each of the sample containers shall be subjected to closure leakage test. The number of failure shall not exceed the acceptance number given in col 5 of Table 1.

#### G-2.4 Wall Thickness, Handle Pull Test, Ink Adhesion, Product Resistance and Migration

The sub-sample of size as given in col 6 of Table 1 shall be subjected to tests for wall thickness, handle pull test ink adhesion, product resistance and migration tests. No failures shall occur for acceptance of the lot under this clause.

#### G-2.5 Drop Impact Test and Stacking Test

One set of sample containers as given in the test methods ( **4.7.2** and **4.7.3** ) shall be drawn from the lot and these shall be subjected to the respective tests. The sample shall pass the tests for acceptance of the lot in respect of drop impact and stacking requirements.

**Table 1 Scale of Sampling and Acceptance Number**

( *Clause* G-1.2 )

| Lot Size | For Visual Examinations ( *Clause* 4.2.2 ) | | For Closure Leakage Test ( *Clause* 4.7.1 ) | | For Wall Thickness, Handle Pull Test, Ink Adhesion, Product Resistance and Migration Test ( *Clauses* 4.6, 4.7.4, 4.7.5, 4.7.6 and 4.7.7 ), Number of Samples |
|---|---|---|---|---|---|
| | Sample Size | Acceptance Number | Sample Size | Acceptance Number | |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Up to 500 | 13 | 1 | 5 | 0 | 2 |
| 501 — 1 000 | 20 | 2 | 8 | 0 | 2 |
| 1 001 — 3 000 | 32 | 3 | 13 | 0 | 2 |
| 3 001 — 5 000 | 50 | 5 | 20 | 1 | 3 |
| 5 001 and above | 80 | 7 | 32 | 2 | 5 |

# AMENDMENT NO. 1 JANUARY 1995
# TO
# IS 10840 : 1994 BLOW MOULDED HDPE CONTAINERS FOR PACKING OF VANASPATI — SPECIFICATION

*( Second Revision )*

( *Second cover page, Foreword* ) — Add the following matter at the end of third para:

'With the promulgation of the *Standards of Weights and Measures (Packaged Commodities) Third Amendment Rules*, 1994, that edible oils, Ghee, Vanaspati and butter oils may be packed by weight on volume basis in sizes 50 g/ml, 100 g/ml, 200 g/ml, 500 g/ml, 1 kg/litre, 2 kg/litres, 5 kg/litres thereafter in multiples of 5 kg/litres, it has become necessary to make suitable provisions in the standard. The rule also states that in case packing has been done on mass basis declaration of volume within brackets and if it is done on volume basis declaration of mass within brackets is to be done. Through this amendment only those changes in the standard are being brought about which are necessary for packing of Vanaspati on volume basis. However, it may be necessary to make some more changes in the standard on the basis of modified sizes which may be developed by the manufacturers for packing of Vanaspati in containers on volume basis.'

( *Page* 1, *clause* 1 ) — Substitute the following for the existing:

'1 SCOPE

This standard covers the requirements, methods of sampling and tests for blow moulded high density polyethylene (HDPE) containers for packing of Vanaspati (hydrogenated oils) in quantities of 1 kg/litre, 2 kg/litres, 5 kg/litres, 10 kg/litres and 15 kg/litres.'

( *Page* 2, *clauses* 4.2.1, 4.2.2, 4.3, 4.4.1, 4.6 *and* 4.7.2 ) — Substitute 'kg/litre' in place of 'kg' wherever it appears.

[ *Page* 3, *clause* 5.1, *Sl No.* (ii) ] — Substitute the following for the existing:

'ii) Net quantity packed in litres (kg) or kg (litres).'

( *Page* 5, *Annex* D, *clause* D-2.2 ) — Substitute 'kg/litre' in place of 'kg' wherever it appears.

( PCD 21 )

Printed at Simco Printing Press, Delhi

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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Handbook' and 'Standards Monthly Additions'.

This Indian Standard has been developed from **Doc : No. PCD 21 ( 1272 ).**

**Amendments Issued Since Publication**

| Amend No. | Date of Issue | Text Affected |
|---|---|---|
| | | |
| | | |
| | | |

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# AMENDMENT NO. 2 OCTOBER 1996
# TO
# IS 10840 : 1994 BLOW MOULDED HDPE CONTAINERS FOR PACKING OF VANASPATI — SPECIFICATION

*( Second Revision )*

( *Page* 1, *clause* 4.1.1, *first para* ) — Substitute the following for the existing:

'The material used for the container body shall be of HDPE of grade designation PE BAN A50 D003 or PE BAN A57 D003 or PE BAN A50 D006 or PE BAN A57 D006 or PE BAN A50 D001 conforming to IS 7328 : 1992.'

( *Page* 1, *clause* 4.1.2, *line* 3 ) — Substitute 'D200' *for* 'T200'.

( *Page* 2, *clause* 4.3 ) — Substitute the following for the existing:

'The minimum brimful capacity of the container when checked in accordance with the method given in Annex A shall be as under:

| *Container Capacity* | *Minimum Brimful Capacity* |
|---|---|
| (kg) | (ml) |
| 1 | 1 160 |
| 2 | 2 300 |
| 5 | 5 700 |
| 10 | 11 500 |
| 15 | 17 500 |
| *Container Capacity* | *Minimum Brimful Capacity* |
| ( litres ) | ( ml ) |
| 1 | 1 040 |
| 2 | 2 070 |
| 5 | 5 130 |
| 10 | 10 350 |
| 15 | 15 750 |

NOTE — The brimful capacity of the container may be calculated on the basis of the specific gravity of vanaspati and may vary with the filling process and filling temperature. The purchaser of the container shall specify the brimful capacity according to the method and temperature of his filling.'

( PCD 21 )

Reprography Unit, BIS, New Delhi, India

# AMENDMENT NO. 3 JUNE 2000
# TO
# IS 10840 : 1994 BLOW MOULDED HDPE CONTAINERS FOR PACKING OF VANASPATI — SPECIFICATION

*( Second Revision )*

[ *Page* 1, *clause* 4.1.1, *first para ( Amendment No.* 2 ) ] — Substitute the following for the existing:

'The material used for the container body shall be of HDPE of grade designation conforming to IS 7328. The recommended HDPE grade designations are given below:

**RECOMMENDED HDPE GRADE DESIGNATIONS**

PE BAN A50 D003
PE BAN A57 D003
PE BAN A50 D006
PE BAN A57 D006
PE BAN A50 D001
PE BAN A45 T012
PE BAN A50 T012
PE BAN A57 T012
PE BAN C50 T012
PE BAN C50 T022
PE BAN C57 T012
PE BAN C57 T022
PE BAN C50 T003
PE BAN C57 T003
PE BAN C50 G045
PE BAN C50 G090
PE BAN C57 G045
PE BAN C57 G090
PE BAN C45 T006
PE BAN C45 T012
PE BAN C45 G022'

**Amend No. 3 to IS 10840 : 1994**

[ *Page* 1, *clause* 4.1.2, *first para* ( *Amendment No.* 2 ) ] — Substitute the following for the existing:

'The material used for the handles and closures shall be of HDPE of grade designation PE MAN A57 T200 or PE MAN A57 D090 conforming to IS 7328 or of polypropylene generally of grade designation PP-HM-95-030 — Nat or PP-HC-95-030 — Nat conforming to IS 10951.'

( PCD 21 )

Reprography Unit, BIS, New Delhi, India

# AMENDMENT NO. 4 JULY 2003
# TO
# IS 10840 : 1994 BLOW MOULDED HDPE CONTAINERS FOR PACKING OF VANASPATI — SPECIFICATION

*( Second Revision )*

( *Foreword, para* 3 ) — Insert the following new paras after para 3:

'A scheme of labelling environment friendly products with the ECO logo has been introduced at the instance of the Ministry of Environment and Forests (MEF), Government of India. The ECO-Mark is being administered by the Bureau of Indian Standards (BIS) under the *BIS Act*, 1986 as per the Resolutions No. 71 dated 21 February 1991 and No. 425 dated 28 October 1992 published in the Gazette of the Government of India. For a product to be eligible for marking with the ECO logo, it shall also carry the ISI Mark of the BIS besides meeting additional environment friendly requirements. For this purpose the Standard Mark would be a single mark being a combination of the ISI Mark and the ECO logo.

This amendment is based on the gazette Notification No. 170 dated 18 May 1996 for plastic products as environment friendly products published in the Gazette of the Government of India. This amendment is, therefore, being issued to this standard to include environment friendly requirements for Blow moulded HDPE containers for packing of vanaspati.'

( *Page* 3, *clause* 4.7.7 ) — Insert the following new clauses after 4.7.7 and renumber the subsequent clauses:

**5 ADDITIONAL REQUIREMENTS FOR ECO-MARK**

**5.1 General Requirements**

**5.1.1** The product shall conform to the requirements for quality, safety and performance prescribed.

**5.1.2** The manufacturer shall produce to BIS the consent clearance as per the provisions of *Water (Prevention & Control of Pollution) Act*, 1974 and *Air (Prevention & Control of Pollution) Act*, 1981 along with the authorization, if required under *Environment (Protection) Act*, 1986 and the Rules made thereunder while applying for the ECO-Mark. The manufacturer shall produce

documentary evidence with respect to the compliance of regulation under *Prevention of Food Adulteration Act*, 1954 and *Drugs and Cosmetic Act*, 1940 and Rules made thereunder, wherever necessary.

5.1.3 The product must display a list of critical ingredients in descending order of quantity present expressed as percent of the total. The list of such ingredients shall be identified by Bureau of Indian Standards.

5.1.4 The product packaging shall display in brief the criteria based on which the product has been labelled as 'Environment Friendly'.

5.1.5 The material used for product packaging shall be recyclable or biodegradable.

5.1.6 It shall also suitably mention that ECO-Mark label is applicable only to the packaging material/package, if content is not separately covered under ECO-Mark. It may be stated that ECO-Mark is applicable to the product or packaging material or both.

**5.2 Product Specific Requirements**

For the manufacture of this product one or more of the virgin material covered in following Indian Standard shall be used:

| *IS No.* | *Title* |
|---|---|
| 10142 : 1999 | Polystyrene (crystal and high impact) for its safe use in contact with foodstuffs, pharmaceuticals and drinking water |
| 10146 : 1982 | Polyethylene for its safe use in contact with foodstuffs, pharmaceuticals and drinking water |
| 10151 : 1982 | Polyvinylchloride (PVC) and its copolymers for its safe use in contact with foodstuffs, pharmaceuticals and drinking water |
| 10910 : 1984 | Polypropylene and its copolymers for its safe use in contact with foodstuffs, pharmaceuticals and drinking water |
| 11434 : 1985 | Ionomers resins for its safe use in contact with foodstuffs, pharmaceuticals and drinking water |
| 11704 : 1986 | Ethylene/acrylic acid (EAA) copolymers for its safe use in contact with foodstuffs, pharmaceuticals and drinking water |

| | |
|---|---|
| 12247 : 1988 | Nylon-6 polymer for its safe use in contact with foodstuffs, pharmaceuticals and drinking water |
| 12252: 1987 | Polyalkylene terephthalates (PET & PBT) for their safe use in contact with foodstuffs, pharmaceuticals and drinking water |

( PCD 21)

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